
**Health Care & Wellness
Committee**

HB 1730

Brief Description: Regarding the use of the life sciences discovery fund for human stem cell research.

Sponsors: Representatives B. Sullivan and Schual-Berke.

Brief Summary of Bill

- Establishes consent requirements for the donation of human stem cells for research purposes.

Hearing Date: 2/21/07

Staff: Chris Blake (786-7392).

Background:

The Biology of Stem Cells

Stem cells can be distinguished from other types of cells in three ways. First, they are capable of dividing and replicating (renewing) themselves indefinitely. Second, stem cells are unspecialized. This means that they do not perform any specific function, as do heart muscle cells, red blood cells, or nerve cells. Lastly, stem cells can create specialized cells. While stem cells do not perform a particular function, they can give rise to specialized cells while remaining unspecialized themselves.

Stem cells can be classified as embryonic stem cells, embryonic germ cells, and adult stem cells according to the stage of development of the organism. The key difference between embryonic stem cells and adult stem cells is that an embryonic stem cell can become any type of cell in the body, while adult stem cells can only vary between the different types of cells within the organ in which they are found. Some research, however, has suggested that adult bone marrow stem cells may have similar characteristics. Another significant difference is that embryonic stem cell replication can generate large numbers of new cells, while adult stem cells do not replicate as easily under current technology.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

Scientists obtain human embryonic stem cells from the blastocyst stage of embryos that are not used after in vitro fertilization treatment. The blastocyst is the stage of embryonic development that occurs approximately four to five days after fertilization of the oocyte and prior to implantation in the uterine wall. In 1998, scientists first isolated and cultured human embryonic stem cells, a process that destroys the embryo. Current research using stem cells pertains to diabetes, Parkinson's disease, heart disease, strokes, cancer, arthritis, burns, congenital birth defects, and spinal cord injuries.

Federal and State Policy on Stem Cells

In 1995, Congress passed legislation prohibiting the use of federal funds for research that may harm a human embryo. The most recent executive order to interpret this law was issued in August 2001 when the President announced that federal funding of embryonic stem cell research would be permitted only for research on the embryonic stem cell lines in existence at that time; funding would not be available for any subsequently created embryonic stem cell lines. The limitation does not apply to privately funded research. At the same time, the President announced the creation of the President's Council on Bioethics to study the ethical and moral implications of developments in biomedical and behavioral science and technology.

Life Sciences Discovery Fund

In 2005, the Legislature created the Life Sciences Discovery Fund Authority (Authority). The Authority is governed by an 11 member board, with seven members appointed by the Governor and four members appointed by the Legislature.

Beginning in 2008, Washington's receipts from the tobacco settlement will increase by \$35 million per year. The legislation establishing the Authority directs these monies into a trust account and authorizes the Authority's trustees to expend it. The intent is to use the money to help Washington research institutions advance both their competitiveness for external grant support and their ability to move discoveries toward commercialization.

Summary of Bill:

Human stem cells may be used for research purposes if the donor has provided written consent to such use and has not received valuable consideration for them. In addition to the general requirements, to donate human embryonic stem cells for research purposes the blastocysts must have been produced through in vitro fertilization procedures and valid informed consent must be obtained by both the sperm and egg donors. Informed consent is valid if the sperm and egg donors acknowledge in writing that they are aware of other options for disposing of blastocysts, including donating them to research, donating them to another person, thawing them without further action, or disposing of them in another way.

The Life Sciences Discovery Fund (Fund) may not fund research that uses human stem cells that are not in compliance with the bill's consent requirements. State-supported higher education institutions proposing research involving human embryonic stem cells must be approved by the institution's embryonic stem cell research oversight committee. Money from the Fund may not be used to injure an embryo that has been implanted into a uterus or to clone a human being by transferring a blastocyst created by somatic cell nuclear transfer into a uterus or substitute for a uterus with the purpose of creating a human.

Appropriation: None.

Fiscal Note: Not requested.

Effective Date: The bill takes effect 90 days after adjournment of session in which bill is passed.